

Notice of Allowability

Application No.

08/910,449

Examiner

Lorraine Spector, Ph.D.

Applicant(s)

GOODWIN ET AL.

Art Unit

1647

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to ____.
2. ☒ The allowed claim(s) is/are 29-44, 47-49, renumbered as 3, 7, 8, 4, 11, 9, 5, 12, 10, 13, 14-19, 6, 2 and 1 respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date 5/13/98.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date ____
- ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Interview Summary (PTO-413), Paper No./Mail Date ____
- ☐ Examiner's Amendment/Comment
- ☐ Examiner's Statement of Reasons for Allowance
- ☐ Other ____


Lorraine Spector, Ph.D.
Primary Examiner
Art Unit: 1647

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CLAIMS PTO

AMENDMENT FILED ON OCTOBER 17,2000

GJT

CLAIMS 1-28 ARE CANCELLED

CLAIMS 29-44 ARE AMENDED

29. (amended) An isolated DNA [encoding a human 4-1BB polypeptide, wherein said DNA comprises] comprising a polynucleotide [sequence] selected from the group consisting of:
- a) nucleotides 120-884 of SEQ ID NO:7;
 - b) nucleotides 189-884 of SEQ ID NO:7; and
 - c) a polynucleotide [sequence] that is degenerate as a result of the genetic code to a nucleotide sequence of (a) or (b).
30. (amended) An isolated DNA encoding a [soluble human 4-1BB polypeptide, wherein said] polypeptide [is] selected from the group of consisting of polypeptides comprising amino acids 1-163 of SEQ ID NO:8 and polypeptides comprising a fragment of amino acids 1-163 of SEQ ID NO:8, the fragment capable binding a 4-1BB-L.

31. (amended) An isolated DNA of claim 30, wherein said DNA additionally encodes an antibody Fc polypeptide fused to the C-terminus of said [soluble human 4-1BB] polypeptide.
32. (amended) A [recombinant expression] vector comprising a DNA according to claim 29[operably linked to regulatory sequences suitable for expression of said DNA sequence in a host cell].
33. (amended) A [recombinant expression] vector comprising a DNA according to claim 30[operably linked to regulatory sequences suitable for expression of said DNA sequence in a host cell].
34. (amended) A [recombinant expression] vector comprising a DNA according to claim 31[operably linked to regulatory sequences suitable for expression of said DNA sequence in a host cell].
35. (amended) A process for preparing a [human 4-1BB] polypeptide, comprising culturing a host cell comprising a vector according to claim 32 under conditions that promote expression of the [human 4-1BB] polypeptide[, and purifying said polypeptide].

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36. (amended) A process for preparing a [soluble human 4-1BB] polypeptide, comprising culturing a host cell comprising a vector according to claim 33 under conditions that promote expression of the [human 4-1BB] polypeptide[, and purifying said polypeptide].
37. (amended) A process for preparing a fusion protein comprising an antibody Fc polypeptide fused to the C-terminus of a [soluble human 4-1BB] polypeptide, comprising culturing a host cell comprising a vector according to claim 34 under conditions that promote expression of the [human] fusion protein[, and purifying said fusion protein].
38. (amended) A purified [human 4-1BB] polypeptide comprising the N-terminal amino acid sequence Leu-Gln-Asp-Pro-Cys-Ser-Asn-Cys-Pro-Ala-Gly-Thr- (amino acid residues 1-12 of SEQ ID NO:8), the polypeptide being capable of binding 4-1BB-L.

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39. (amended) A purified [4-1BB according to claim 38] polypeptide, comprising an amino acid sequence selected from the group consisting of amino acids 1-232 of SEQ ID NO:8 and amino acids 1-163 of SEQ ID NO:8.
40. (amended) A purified [4-1BB according to claim 38] polypeptide, comprising an amino acid sequence that is identical to a sequence selected from the group consisting of amino acids 1-232 of SEQ ID NO:8 and amino acids 1-163 of SEQ ID NO:8, except for conservative amino acid substitution(s).
41. (amended) A purified [soluble human 4-1BB polypeptide, wherein said polypeptide is] polypeptide selected from the group consisting of polypeptides comprising amino acids 1-163 of SEQ ID NO:8 and polypeptides comprising a fragment of amino acids 1-163 of SEQ ID NO:8, the fragment capable of binding a 4-1BB-L.
42. (amended) A purified [soluble human 4-1BB] polypeptide of claim 41, additionally comprising an antibody Fc polypeptide fused to the C-terminus of said [human 4-1BB] polypeptide.
43. (amended) A dimer comprising two [soluble human 4-1BB] polypeptides of claim [42] 41, joined *via* disulfide bonds between [the] antibody Fc polypeptides fused to said [soluble 4-1BB] polypeptides.
44. (amended) A composition comprising a [soluble human 4-1BB] polypeptide of claim 41 in admixture with a diluent, carrier, or excipient.

CLAIMS 45 AND 46 ARE CANCELLED

CLAIMS 47-49 ARE AMENDED

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47. (amended) An isolated polynucleic acid [molecule] comprising [a sequence of] at least about 30 nucleotides of a DNA [sequence] according to claim 29 or its DNA or RNA complement.
48. (amended) A purified [4-1BB] polypeptide comprising amino acids 1-232 of SEQ ID NO:8.
49. (amended) A purified [4-1BB] polypeptide comprising amino acids 1-163 of SEQ ID NO:8.